

WHAT IS CLAIMED IS:

1. A complex comprising piroxicam, a cyclodextrin and arginine, characterized in that the degree of
5 dissolution of the piroxicam present in a 4 g/l solution in water, measured at 37°C after stirring for between 5 and 120 minutes, is greater than 90%, advantageously greater than 95%, advantageously equal to 99%.
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2. A complex comprising piroxicam, a cyclodextrin and arginine, characterized in that it comprises less than 40% by weight of amorphous phase, advantageously less than 30% by weight.
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3. The complex as claimed in either one of claims 1 and 2, characterized in that the cyclodextrin is a β -cyclodextrin.
- 20 4. A process for the preparation of a complex as claimed in any one of claims 1 to 3, characterized in that it comprises the following successive stages:
 - (1) bringing piroxicam into contact with a cyclodextrin
25 and arginine,
 - (2) carrying out a stage of molecular diffusion by bringing a dense pressurized fluid into contact, in static mode, with the mixture obtained in stage (1) in the presence of one or more diffusion agents,
 - 30 (3) recovering the piroxicam/cyclodextrin/arginine complex thus formed.
5. The process as claimed in claim 4, characterized in that the dense pressurized fluid is carbon dioxide.
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6. The process as claimed in either one of claims 4 and 5, characterized in that the diffusion agent is chosen from the group consisting of alcohols, ketones,

ethers, esters and water, with or without surfactant, and their mixtures, advantageously water.

7. The process as claimed in any one of claims 4 to 6, characterized in that stage (2) of molecular diffusion is carried out with stirring.

8. The process as claimed in any of claims 4 to 7, characterized in that the diffusion agent is added continuously or portionwise in an amount of between 1 and 50% by weight with respect to the total weight of the mixture, preferably between 10 and 25% by weight with respect to the total weight of the mixture.

9. A pharmaceutical composition comprising a complex as claimed in any one of claims 1 to 3 and optionally a pharmaceutically acceptable excipient.

10. The complex as claimed in any one of claims 1 to 3 or the pharmaceutical composition as claimed in claim 9 as medicament advantageously having an anti-inflammatory action and advantageously intended to treat inflammatory rheumatism, polyarthrititis, arthrosis, tendinitis or post-traumatic conditions of the locomotor apparatus.

11. A process for the preparation of a soluble inclusion compound comprising one or more active substances included in one or more host molecules, the active substance or substances not being very soluble in an aqueous medium, characterized in that it comprises the following successive stages:

- a. bringing one or more active substances into contact with one or more host molecules,
- b. carrying out a stage of molecular diffusion by bringing a dense pressurized fluid into contact, in static mode, with the mixture obtained in stage (a) in the presence of one or more diffusion agents,

- c. recovering the active substance/host molecule molecular complex thus formed,
 - d. carrying out a stage which consists in adding to and mixing with the active substance/host molecule molecular complex an agent for interaction with the complex,
 - e. recovering the soluble inclusion compound thus formed.
- 10 12. The process as claimed in claim 11, characterized in that the host molecule is chosen from the group consisting of saccharides or polysaccharides or their mixtures, preferably from cyclodextrins and their mixture.
- 15 13. The process as claimed in either one of claims 11 and 12, characterized in that the agent for interaction with the complex is an acid or a base.
- 20 14. The process as claimed in claim 13, characterized in that the agent for interaction with the complex is an amino acid, a carboxylic acid or aqueous ammonia, advantageously aqueous ammonia.
- 25 15. The process as claimed in any one of claims 11 to 14, characterized in that the dense pressurized fluid is carbon dioxide.
- 30 16. The process as claimed in any one of claims 11 to 15, characterized in that the active substance is a pharmaceutical active principle, preferably chosen from the group consisting of analgesics, antipyretics, aspirin and its derivatives, antibiotics, anti-inflammatory, antiulceratives, antihypertensives, neuroleptics, antidepressants, oligonucleotides
- 35 exhibiting a therapeutic activity, peptides exhibiting a therapeutic activity and proteins exhibiting a therapeutic activity, a cosmetic active principle or a nutraceutic active principle.

17. The process as claimed in claim 16, characterized in that the active substance is chosen from the group consisting of anilide derivatives, epipodophyllotoxin derivatives, minoxidil, piroxicam, valeric acid, octanoic acid, lauric acid, stearic acid, tiaprofenic acid, omeprazole, econazole, miconazole, ketoconazole, astemizole, cyclobenzaprine, nimesulide, ibuprofen, terfenadine, domperidone, naproxen and eflucimibe; 5
10 advantageously, it is piroxicam.

18. The process as claimed in any one of claims 11 to 17, characterized in that the pressure of the dense fluid is between 0.5 Mpa and 50 MPa and the temperature 15
between 0 and 200°C.

19. The process as claimed in any one of claims 11 to 18, characterized in that the diffusion agent is chosen from the group consisting of alcohols, ketones, ethers, 20
esters and water, with or without surfactant, and their mixtures, advantageously water.

20. The process as claimed in any one of claims 11 to 19, characterized in that stage (b) of molecular 25
diffusion is carried out with stirring.

21. The process as claimed in any one of claims 11 to 20, characterized in that the diffusion agent is added continuously or portionwise in an amount of between 1 30
and 50% by weight, preferably between 10 and 25% by weight.

22. The process as claimed in any one of claims 11 to 21, characterized in that stage (b) of the process is 35
carried out in a closed, optionally stirred, reactor fed with the dense fluid and the solution of active substance, if appropriate, continuously.

23. A soluble inclusion compound comprising one or more active substances included in one or more host molecules, the active substance or substances not being very soluble in an aqueous medium, and an agent for interaction with the complex, characterized in that it is obtainable by the process as claimed in any one of claims 1 to 22.

24. The compound as claimed in claim 23, characterized in that its degree of inclusion of active substance is greater than 95%, advantageously greater than 98%.

25. The compound as claimed in either one of claims 23 and 24, characterized in that the active substance is piroxicam and the host molecule is β -cyclodextrin.